

REMARKS

Claims 1-8 remain pending in this application, and 9-14 have been added by this response. Claims 7 and 8 stand withdrawn from consideration, but as discussed below, claims 7 and 8 are believed to be generic and allowable, and therefore claims 7 and 8 should remain in the present application. In view of the following remarks, reconsideration and withdrawal of the rejections set forth in the Office Action of May 26, 2005 are earnestly solicited.

Claim 1 has been amended to clarify Applicants' invention and is not believed to be of narrowing scope. Specifically, claim 1, as amended, is directed to a universal joint assembly having "a boot at one end of the universal joint assembly" and "a diaphragm seal in said housing forming a single wall of said chamber, said diaphragm seal being supported by a supporting ring, said supporting ring and diaphragm seal being located at the end of the universal joint assembly opposite the boot." No new matter has been introduced by virtue of this amendment.

Claims 1-6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Orain (U.S. Patent No. 3,817,057, hereinafter "Orain"). Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by O'Donnell (U.S. Patent No. 2,354,961, hereinafter "O'Donnell"). Claims 1, 3 & 4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Alden (U.S. Patent No. 2,362,456, hereinafter "Alden"). Claims 1, 3 & 4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by any one of Krude et al. (U.S. Patent No. 4,262,498, hereinafter "Krude"), Reilly (U.S. Patent No. 3,149,883, hereinafter "Reilly"), and Brabant (U.S. Patent No. 781,180, hereinafter "Brabant"). Claims 1 & 3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Fisher et al. (U.S. Patent No. 3,858,412, hereinafter "Fisher"). Claims 1 & 3 stand

rejected under 35 U.S.C. § 102(e) as being anticipated by Miller et al. (U.S. Patent No. 6,540,616, hereinafter "Miller"). Each of these rejections is respectfully traversed for the reasons stated herein.

Neither Orain, nor any other reference cited by the examiner, alone or in combination, teaches a universal joint assembly comprising "a diaphragm seal ... forming a single wall of said chamber ... being supported by a supporting ring, said supporting ring and diaphragm seal being located at the end of the universal joint assembly opposite the boot." (Amended claim 1). Therefore, Claim 1, and its dependent claims 2-6 are believed to be in condition for allowance.

Specifically, Orain discloses a skirt 16 and a sleeve 9 that "completely encloses the coupling." (Orain, Col. 2, lines 48-60). Orain fails to disclose a "diaphragm seal forming a single wall" of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claims 2-6, which depend from claim 1, are also believed to be in condition for allowance.

O'Donnell discloses flexible elements 27 and 28 holding a "quantity of liquid, such as oil ...[such that] flexible element 28 permits relative deflection and a longitudinal extension of the shafts." O'Donnell likewise fails to disclose "a diaphragm seal forming a single wall" of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claims 2-5 which depend from claim 1, are also believed to be in condition for allowance.

Alden discloses a universal joint "sealed against lubricant leakage ... by the

novel boot of the invention designated as 26 which ... may be made of any suitable flexible material." (Alden, Col 3, lines 12-25). Alden fails to disclose "a diaphragm seal forming a single wall" of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claims 3 & 4, which depend from claim 1, are also believed to be in condition for allowance.

Krude discloses "a sealing boot assembly including two sealing boot parts 14,15. ... [T]he sealing boot parts extend toward one another to the universal joint with the ends of the boot parts at the joint being held against the outer surface of a ring 18 extending around the outer joint member 1." (Krude, Col. 3, lines 40-49). Krude fails to disclose "a diaphragm seal forming a single wall" of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claims 3 & 4 which depend from claim 1, are also believed to be in condition for allowance.

Reilly discloses a protective "hub closure 20 ... formed of ... suitable flexible ... material [that] has a ring 22 formed at one extremity of hub 12." (Reilly, Col. 1, lines 46-51). Reilly fails to disclose "a diaphragm seal forming a single wall" of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claims 3 & 4 which depend from claim 1, are also believed to be in condition for allowance.

Brabant discloses a hub casing having "an annulus ... and ... a bellows, of strong

textile, surrounding the annulus C.” (Brabant, Col 1, lines 43-48). Brabant fails to disclose “a diaphragm seal forming a single wall” of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claims 3 & 4 which depend from claim 1, are also believed to be in condition for allowance.

Fisher discloses “a valve to release air from and admit air to the interior of the joint during operation.” (Fisher, Abstract). Fisher fails to disclose “a diaphragm seal forming a single wall” of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claim 3 which depends from claim 1, is also believed to be in condition for allowance.

Miller discloses a “constant velocity joint vent ... and a valve.” (Miller, Abstract). Miller fails to disclose “a diaphragm seal forming a single wall” of the chamber. The reference therefore falls short of the claimed invention; claim 1 is patentably distinguishable over the cited art. Independent claim 1 is therefore believed to be in condition for allowance. Dependent claims 2-3 which depend from claim 1, are also believed to be in condition for allowance.

New Claims

New claims 9-14 have been added for consideration by the examiner. Support for these additional claims can be found in paragraphs 19 & 20. No new matter is introduced by virtue of these new claims.

Conclusion

Applicants note that the above amendments are not to be construed as a concession of the Examiner's position regarding the prior art. Applicants are merely trying to expedite allowance of the present application, and hereby preserve the right to pursue the rejected claims in a continuance application.

It is believed that all of the stated grounds of rejection have been properly traversed. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this response is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 944-6525.

Respectfully submitted,

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